REMARKS/ARGUMENTS

By this amendment, Claim 1 and 30 are amended, and Claims 29 and 38 are canceled. Hence, Claims 21-28, 30-37 are pending in the application.

I.   SUMMARY OF THE INTERVIEW

The Examiner is thanked for the in-person interview held on July 28, 2008. Representative for the Applicants and the Examiner discussed the differences between Claim 1 and the *Carruthers* reference and a possible amendment, which is made herein. No agreement was reached.

II.   SUMMARY OF THE REJECTIONS

Claims 30-38 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. This is respectfully traversed.

Claims 29 and 38 stand rejected under 35 U.S.C. § 112(1) as allegedly failing to comply with the written description requirement. By this amendment, Claims 29 and 38 are canceled, which obviates this rejection.

Claims 21-38 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Publication No. 2002/0128904 to Carruthers et al. ("*Carruthers*"). This rejection is respectfully traversed.

III.   THE REJECTIONS NOT BASED ON THE CITED ART

Claims 30-38 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Deleting text from the specification to define the invention is generally considered a bad practice. Amending the claims is the accepted way to define the invention and ensure that what is claimed is directed to non-statutory subject matter.

It is respectfully noted that each of Claims 30-38 recite a "computer-readable **storage medium storing** instructions", not "computer-readable medium" as alleged in the Office Action. The arguments of the Office Action seem to suggest that Claims 30-38 are directed towards a signal. The plain meaning of "a computer-readable storage medium storing instructions" requires that the storage medium *store* the instructions so that they may be read by a computer. A signal is not a computer-readable storage medium because a signal is not a medium that is capable of storing instructions that may be read by a computer. While it is true that a signal may *carry* instructions, those instructions carried by a signal are not *stored*. For example, volatile or non-volatile memories may store instructions, whereas a signal cannot. The Applicants acknowledge that the Office's current position is that signals are not patentable subject matter, but a computer-readable storage medium is not a signal.

The Patent Office has previously acknowledged that claims directed to a computer-readable storage medium are patentable (see *In re Beauregard*). Even after the adoption of the current Interim Guidelines, the USPTO continues to issue many patents with claims directed towards a computer-readable storage medium. Further, a computer-readable storage medium qualifies as an article of manufacture, which is expressly recognized as patentable subject matter under 35 U.S.C. § 101.

Consequently, it is respectfully submitted that each of Claims 30-38 is directed towards statutory subject matter, and the rejection made under 35 U.S.C. § 101 is respectfully requested to be withdrawn.

IV. THE REJECTIONS BASED ON THE CITED ART

Claims 21-38 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Carruthers*.

A. CLAIM 21

Claim 21 recites:

> A method for determining which advertisements to include with electronic content delivered to users over a network, the method comprising the steps of:
> storing data that indicates delivery criteria and delivery obligations for each of a plurality of contracts, wherein each contract is associated with an advertiser of a plurality of advertisers,
> wherein each contract is associated with a separate advertisement of a plurality of advertisements,
> wherein a first contract with a first advertiser of the plurality of advertisers was formed before a second contract with a second advertiser of the plurality of advertisers;
> **after the plurality of contracts have been formed, receiving a request** to provide over said network a piece of **electronic content that includes a slot for an advertisement**;
> reading said data to determine delivery criteria associated with the plurality of contracts;
> comparing slot attributes of said slot with delivery criteria of said plurality of contracts to determine a subset of said plurality of advertisements which qualify for inclusion in said slot,
> **wherein the slot attributes include at least one attribute that corresponds to the subject of the electronic content,**
> wherein both a first advertisement associated with the first contract and a second advertisement associated with the second contract qualify for inclusion in said slot,
> **wherein the second contract is associated with a behindness value that is currently greater than a behindness value associated with the first contract,**
> wherein the behindness value of each contract reflects how far behind a content provider is on satisfying the delivery obligations associated with each contract; and
> **from said subset of advertisements, selecting said first advertisement to include in the slot based, at least in part, on the first contract having been formed before the second contract.** (emphasis added)

At least the above-bolded elements of Claim 1 are not disclosed, taught, or suggested by *Carruthers*.

As a preliminary matter, it should be noted that both *Carruthers* and the invention recited in Claim 1 attempt to solve the problem with the most-behind-first approach. The problem is described in paragraph 16 of the present application:

[0016] Unfortunately, the most-behind-first approach has some significant disadvantages that may lead to perceived or actual unfairness. For example, an advertiser may be interested in advertising in slots that are already subject to several pre-existing obligations. If the advertiser becomes aware of the pre-existing obligations, **the advertiser may contract for a much higher delivery obligation than the advertiser actually desires. The consequence of such a contract could be to significantly reduce the number of slots assigned to the previously contracted advertisers, while potentially given the latecomer advertiser exactly the number of slots the advertiser actually desires.** (emphasis added)

However, while *Carruthers* solves the same problem, the way *Carruthers* solves the problem is fundamentally different than how the technique recited in Claim 1 solves the problem. Specifically, *Carruthers* avoids the problem of allowing late-comers to squeeze out prior orders by (a) predicting whether each later order can be filled without affecting prior orders, and (b) rejecting later orders that cannot be filled without affecting prior orders. (In addition to rejecting the orders, *Carruthers* also suggests changes that will make the orders acceptable.) Thus, *Carruthers'* approach can be accurately called a pre-filtering approach.

As explained in the interview, the pre-filtering approach works great in situations (such as *Carruthers'* POP servers) where it is possible to estimate, with a reasonable degree of accuracy, which people will be sending requests to a server, and how frequently each of them will be sending requests to a server. Since *Carruthers'* approach works well in the context anticipated by *Carruthers'*, there would be no reason to combine *Carruthers'* pre-filtering approach with an entirely different approach (e.g., the approach described in Claim 1). In other words, because *Carruthers'* has already provided a solution to the problem, it would not make sense to say that one would be motivated to modify *Carruthers'* to also provide a completely different solution to the same problem.

1. Carruthers *fails to teach or suggest that electronic content includes a slot for an advertisement*

Claim 1 recites "after the plurality of contracts have been formed, receiving a request to provide over said network a piece of electronic content that includes a slot for an advertisement." *Carruthers* fails to teach or suggest that electronic content includes a slot for an advertisement. On page 3, the Office Action equates the recited "slot" with an ad opportunity. This is clearly incorrect. An ad opportunity exists in many contexts that have nothing to do with "slots" in "electronic content". For example, in *Carruthers* the ad opportunities appear to be in the form of sending ads to the users of a POP server. Presumably, those users are retrieving email. However, the advertisements are not put into slots in the email. *Carruthers'* email has no "slots". Further, there is <u>no reason</u> for electronic content in *Carruthers* to include a slot for an advertisement.

2. Carruthers *fails to teach or suggest that slot attributes include an attribute that corresponds to the subject of the electronic content*

Claim 1 further recites "wherein the slot attributes include at least one attribute that corresponds to the subject of the electronic content." *Carruthers* fails to teach or suggest this feature of Claim 1. According to *Carruthers*, an advertisement is determined eligible for a particular user by matching the profile of the particular user with the profiles of advertisements in a prioritized list generated by an inventory manager 51. As made clear above, *Carruthers* fails to even suggest that electronic content has slots into which advertisements are included. What's more, the Examiner conceded in the in-person interview that *Carruthers* fails to teach or suggest that a slot attribute corresponds to the subject of the electronic content. Even if *Carruthers* did disclose that a requested piece of electronic content includes a slot for an advertisement (which *Carruthers* does not), *Carruthers* fails to teach or suggest that the

attributes of the slot, which are considered when deciding what ads qualify, include the subject

of the electronic content that includes the slot.

> 3.   Carruthers *fails to teach or suggest that a first ad is selected over a second ad despite the fact that the contract associated with the second ad has a greater behindness value than the contract associated with the first ad*

According to Claim 1, a first advertisement is selected based on the fact that a first

contract (associated with the first advertisement) was formed before a second contract, <u>despite

the fact that the second contract has a behindness value that is greater than the first contract</u>.

Carruthers fails to teach or suggest this feature of Claim 1. Instead, *Carruthers* teaches a

system where, once contracts are formed, the order in which advertisements are displayed is

based **only** on whether the daily goals (or objectives) of each campaign are reached (see

paragraphs 32, 34, and 35). For example, if an ad campaign did not reach its impression goal

for one day, then the subsequent day's impression goal for that ad campaign may be increased

in order to satisfy that ad campaign's contract (see paragraph 35). Thus, *Carruthers* teaches

that if a first ad campaign is further behind its goal relative to a second ad campaign, then the

first ad campaign will be given more opportunities to fulfill its goal until the first ad campaign

has "caught up" relative to the second ad campaign, which is contrary to this feature of Claim 1.

Thus, *Carruthers* teaches that the order of the master list is based **only** on how many ad

impressions are left for each advertisement. This is done to ensure that the respective contract

requirements are met.

Since *Carruthers* already performs pre-filtering to solve the problem, *Carruthers* can

safely use a behindness measure to select among ads, when some ads fall behind. There would

be no reason for *Carruthers* to penalize later contracts, because *Carruthers* has already made

sure that those later contract will not adversely affect any pre-existing contracts.

> *4.* Carruthers *fails to teach or suggest that the time of contract formation, relative to other contract formations, is taken into account when determining which advertisement to place in a slot*

Claim 1 recites "from said subset of advertisements, selecting said first advertisement to include in the slot based, at least in part, on the first contract having been formed before the second contract." Therefore, the selection of the first advertisement over the second advertisement is made <u>after</u> the respective contracts have been formed. Also, the selection is made based on the fact that the first contract was formed before the second contract. In contrast, *Carruthers* fails to teach or suggest that the time of when a contract was formed, relative to another contract, is taken into account <u>when determining which advertisement to select to place in a slot</u>. Once *Carruthers* has formed two contracts, when the contracts were formed is <u>irrelevant</u> to the ad selection process. Indeed, there is <u>no need</u> for *Carruthers* to base its advertisement selection on when a contract was formed, because *Carrutthers'* Capacity Forecaster 52 <u>has already determined that the agreed upon objectives of each accepted ad campaign are achievable</u>.

Based on the foregoing, *Carruthers* fails to teach or suggest, or render obvious, numerous features of Claim 1. Therefore, Claim 1 is patentable over *Carruthers*. Reconsideration and withdrawal of the rejection of Claim 1 under 35 U.S.C. § 103(a) is therefore respectfully submitted.

B. CLAIM 30

Claim 30 is an independent claim that recites elements similar to those discussed above with respect to Claim 21, except that Claim 30 is recited in computer-readable storage medium format. Consequently, for at least the reasons given above with respect to Claim 21, it is

respectfully submitted that Claim 30 is also patentable over *Carruthers*, and is in condition for allowance.

C.   CLAIMS 22-28, 31-37, 39, AND 40

Claims 22-28, 31-37, 39, and 40 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 22-28, 31-37, 39, and 40 is therefore patentable over *Carruthers* for at least the reasons given above for the claim on which it depends. In addition, one or more of Claims 22-28, 31-37, 39, and 40 introduces one or more additional limitations that may render them patentable over *Carruthers*. For example:

1.   *Claim 27*

Claim 27 depends on Claim 21 and additionally recites "associating a priority class with each of said plurality of advertisements; and filtering out of said subset one or more advertisements that have a priority class that is lower than the priority class of any other advertisement that belongs to said subset." Thus, advertisements are filtered out (of a set of advertisements) that have a priority class that is lower than the priority class of any other advertisements in the set. In rejecting Claim 27, the Office Action alleges:

> Carruthers et al teaches default or filler ads that are used when no other ads are applicable for that user/slot/opportunity. This is taken to be a teaching that when there are indeed targeted ads that qualify (i.e. ads in a fist priority class), that the default ads (i.e. ads in the second priority class) are not to be considered. It would have been obvious…to have excluded such default ads when the "normal" ads are available. One of ordinary skill would have found it obvious to have created a subset of ads by either starting with an entire collection and eliminating ads that don't belong, or by merely building the subset by selectively including only ads that do belong.

Carruthers refers to filler ads and instant ads only in paragraphs 75 and 76. However, *Carruthers* fails to teach or suggest that <u>after</u> a set of advertisements are determined, one or more advertisements are <u>filtered</u> (or removed) from that set, much less that the filtered out

advertisements have a priority class that is lower than any other advertisement in the set. Even though the filler ads and instant ads may be considered ads that have a low priority relative to other ads, filler ads and instant ads are **never filtered out of a set of advertisements that qualify for inclusion in a particular slot**.

The Office Action alleges, "It would have been obvious…to have excluded such default ads when the 'normal' ads are available." This is incorrect. It is <u>not</u> obvious to <u>exclude</u>, from a set, ads that <u>were **never** included in the set</u>.

Furthermore, the Office Action also alleges, "One of ordinary skill would have found it obvious to have created a subset of ads by either starting with an entire collection and eliminating ads that don't belong, or by merely building the subset by selectively including only ads that do belong." The Office Action uses hindsight analysis in this judgment of obviousness, which type of analysis is always improper. MPEP § 2145(X) warns that a conclusion of obviousness <u>cannot</u> take into account <u>knowledge gleaned only from an applicant's disclosure</u>. The first part of the conclusion of obviousness sentence above ("One of ordinary skill would have found it obvious to have created a subset of ads by…starting with an entire collection and eliminating ads that don't belong") comes directly from a high-level reading of Claim 27, whereas the second part of the conclusion of obviousness sentence ("One of ordinary skill would have found it obvious to have created a subset of ads by…building the subset by selectively including only ads that do belong") comes directly from a high-level reading of Claim 21. Therefore, the conclusion of obviousness takes into account knowledge (i.e., from Claims 21 and 27) gleaned only from Applicants' disclosure.

Due to the fundamental differences already identified and to expedite the positive resolution of this case, a separate discussion of all those limitations is not included at this time.

The Applicants, however, reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

V.   CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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